

(19) World Intellectual Property Organization International Bureau



(43) International Publication Date  
31 December 2003 (31.12.2003)

PCT

(10) International Publication Number  
WO 2004/001370 A3

(51) International Patent Classification<sup>7</sup>: A61B 10/00

(71) Applicant and  
(72) Inventor: MOO, Yoon, Ngen [MY/MY]; 112 Jalan Jalak, Taman Bukit Mewah, 5 1/2 Miles, Jalan Cheras, 56100 Kuala Lumpur (MY).

(21) International Application Number: PCT/SG2003/000153

(22) International Filing Date: 21 June 2003 (21.06.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
PI20022342 21 June 2002 (21.06.2002) MY

(71) Applicant (for AG only): SOH, Kar, Liang [SG/SG]; c/o Ella Cheong Mirandah & Sprusons Pte Ltd, 111 North Bridge Road, #22-01 Peninsula Plaza, Singapore 179098 (SG).

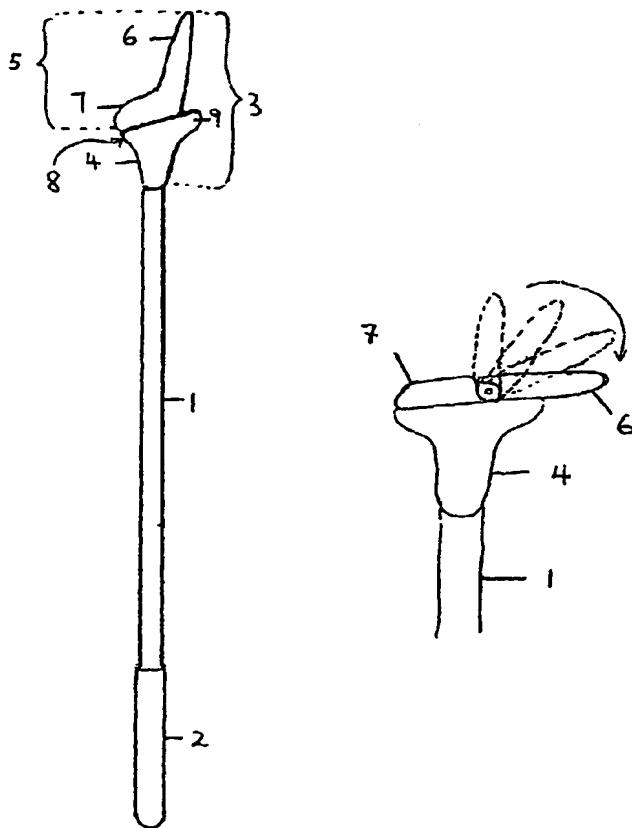
(74) Agent: ELLA CHEONG MIRANDAH & SPRUSONS PTE LTD; Robinson Road Post Office, P.O. Box 1531, Singapore 903031 (SG).

(81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW),

[Continued on next page]

(54) Title: PRECISION CONTOURED EXO/ENDOCERVICAL CELL SAMPLER



(57) Abstract: An L-shaped, precision contoured EXO/ENDOcervical cell sampler for collecting representative cells is invented for pre-malignant and malignant diagnosis. The said cell sampler comprises of an elongated and rounded stick shaped (1) stem with a slightly thickened handle means (2) at one end, and a flattened connecting means (4) having two protrusions (8, 9) at the other end. An L-shaped configuration (5) at the root of said connecting means (4) has one vertical ENDOcervical contact portion (6) and one horizontal EXOcervical contact portion (7), which directly hug to the transformation zone thereby allowing a through and complete 360 DEG rotational sweeping-up of all the truly representative cells. When said cell sampler is withdrawn from the cervix, the vertical ENDOcervical contact portion (6) is subsequently bent and both the EXO-and ENDOcervical portions are swept across a microscope slide (10) for cytological microscopic examination.



Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

**Published:**

- *with international search report*
- *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments*

**(88) Date of publication of the international search report:**  
12 August 2004

*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*

# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/SG 03/00153-0

## CLASSIFICATION OF SUBJECT MATTER

IPC<sup>7</sup>: A61B 10/00

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC<sup>7</sup>: A61B 10/00

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

EPODOC, WPI

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	EP 0527909 B1 (MEDSCAND AB) 24 November 1993 (24.11.1993) <i>the whole document; especially fig. 1-8; column 3, lines 14-28; column 4, line 1 - column 6, line 36; claims 1,2,5,9.</i>	1-7,9
A	EP 0864296 A1 (LAB. C.C.D.) 16 September 1998 (16.09.1998) <i>fig. 1,2; abstract; column 4, lines 49-51.</i>	1,3,4,6
A	US 6346086 B1 (J. Maksem et al.) 12 February 2002 (12.02.2002) <i>fig. 5,10; abstract; column 10, line 49 - column 11, line 15; column 11, line 52 - column 12, line 22.</i>	1,4,5
A	US 5279307 A (R. Mohajer) 18 January 1994 (18.01.1994) <i>the whole document.</i>	1-4,6
A	US 5022408 A (R. Mojaher) 11 June 1991 (11.06.1991) <i>the whole document.</i>	1-4,6

Further documents are listed in the continuation of Box C.

See patent family annex.

\* Special categories of cited documents:  
„A“ document defining the general state of the art which is not considered to be of particular relevance  
„E“ earlier application or patent but published on or after the international filing date  
„L“ document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)  
„O“ document referring to an oral disclosure, use, exhibition or other means  
„P“ document published prior to the international filing date but later than the priority date claimed

„T“ later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention  
„X“ document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone  
„Y“ document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art  
„&“ document member of the same patent family

Date of the actual completion of the international search  
31 March 2004 (31.03.2004)

Date of mailing of the international search report  
24 June 2004 (24.06.2004)

Name and mailing address of the ISA/AT  
Austrian Patent Office  
Dresdner Straße 87, A-1200 Vienna  
Facsimile No. 1/53424/535

Authorized officer  
LUDWIG H.  
Telephone No. 1/53424/340

## INTERNATIONAL SEARCH REPORT

International application No.

PCT/SG 03/00153-0

## C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 5623941 (T. Hedberg et al.) 29 April 1997 (29.04.1997) <i>the whole document; especially fig. 4,8,16; column 3, lines 16-22; column 4, lines 7-18,28-36, column 5, lines 48-53; claims 1,3.</i> ----	1,3-5

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

PCT/SG 03/00153-0

Patent document cited in search report		Publication date	Patent family member(s)		Publication date
EP	A	527909	ES	T 2046897T	1994-02-01
			WO	A 9116855	1991-11-14
			SE	A 9001679	1991-09-16
			SE	B 465451	1991-09-16
			EP	A 0527909	1993-02-24
			DE	T 69100688T	1994-05-05
EP	A	864296	FR	A 2760626	1998-09-18
			EP	A 0864296	1998-09-16
US	A	5022408	1991-06-11	JP T 5507634T	1993-11-04
			BR	A 9106373	1993-04-27
			NO	A 924099	1992-12-09
			FI	A 924765	1992-10-21
			WO	A 9116004	1991-10-31
US	A	5279307	1994-01-18	none	
US	A	5623941	1997-04-29	DE T 68903502T	1993-04-01
			DE D 68903502D		1992-12-17
			AT T 82107T		1992-11-15
			KR B 142201		1998-06-15
			WO A 8910724		1989-11-16
US	B	6346086	2002-02-12	AU A 3761499	1999-11-08
			WO A 9953841		1999-10-28